be attempted if technically feasible. Observation without immediate laparotomy can be considered in certain cases of blunt abdominal trauma in children after confirming an isolated splenic injury by splenic scan or arteriogram. Adequate pediatric intensive care facilities must be available so that the child can be constantly monitored.

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Acetaminophen Toxicity

TOXICITY FROM OVERDOSES of acetaminophen has become a well-recognized entity during the past few years. Fortunately, basic scientific studies have provided sufficient data to design a rational and effective treatment. The National Multiclinic Open Study for evaluation of N-acetylcysteine has provided more data than expected in the more than 1,500 cases collected during the past two years. Some observations are now possible about the incidence, diagnosis and treatment of acetaminophen overdose.

Ingestion of acetaminophen in children even when there are toxic blood levels produces rare hepatotoxic effects. While a few cases in young children have resulted in very high serum glutamic oxaloacetic transaminase (SGOT) levels, the outcome has been almost universally satisfactory. In one case with a SGOT level as high as 20,000 IU per liter, the patient left the hospital with no toxic sequelae on day 7. Acetaminophen then produces a very rapid rise in SGOT with rapid resolution of the toxic process.

In 18 percent to 25 percent of persons older than 12 years, toxic blood levels will be found and some alteration of hepatic enzymes detected. Correlation between history and toxicity is totally lacking and the only way to determine whether a patient has potential for hepatotoxicity is to determine blood levels four or more hours after ingestion. Mortality has been less than 0.4 percent and in fatal cases the patients had generally sought medical attention more than 24 hours after ingestion. Morbidity is most common in those patients seen by a physician between 16 and 24 hours after ingestion and is rare in those patients presenting up to 16 hours after ingestion. Treatment has been provided for all patients up to 24 hours after ingestion.

Even in those patients with SGOT levels above 1,000 IU per liter, no residual toxicity has ever been found. Liver biopsies at three months and a year after hepatotoxicity show no abnormalities.

There has been a major misconception about chronic toxicity. Salicylates, for example, have cumulative kinetics and therefore chronic salicylism may result following therapeutic use of the drug. Acetaminophen, on the other hand, does not have cumulative kinetics and cannot continue to rise in concentration unless the dose is continuously raised. This chronic toxicity is reduced in persons taking an excessive amount of acetaminophen over a period sufficient to deplete hepatic gluthethione as in an overdose.

The National Multiclinic Open Study was not a controlled study in the usual sense because of a number of ethical considerations. In using historical controls, even with the related statistical problems, clear-cut advantages in reduction of peak SGOT levels were obtained. The drug is still on an Investigation New Drug license and permission to use the drug, as well as the method, can be obtained by calling 800-525-6115.

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Human Breast Milk—Storage and Safety Considerations: Protective Effects

DEBATE REGARDING the benefits of human milk in infants of low-birth weight continues. The ease of digestibility, the presence of host resistance factors and the decreased incidence of sensitization with foreign protein are the reasons that human milk is being used with increased frequency in intensive care nurseries. Currently, few data are available on the effects of collection, processing and storage of various components of the milk. Human milk contains large quantities of macrophages and lymphocytes; however, these cells cling to the sides of glass containers, thus reducing the quantity available for the infant. Slow freezing, lyophilization, pasteurization (63° C for 30 minutes) and sterilization (100°C for 20